

## Claims

1. Method for routing data packets in a routing device (1) connecting a first network and a second network, characterized by the steps of:

- (a) receiving a frame from a device (9) connected to the first network;
- (b) forwarding the frame to an internal bridge module (4) of the device;

(c) checking whether the frame contains a multicast group management message and in the affirmative, creating a new frame comprising as destination address the destination address of an internal multicast group management module (6) and as payload at least the multicast management data of the received frame; and

- (d) forwarding this new frame to the internal bridge function (4).

2. Method according to claim 1, wherein the first network is an Ethernet network and wherein the steps (a) to (d) are carried out by an Ethernet switch module.

3. Method according to claim 1 or 2, further comprising the step of inserting into the new frame an identifier of a port on which the initial frame was received.

4. Method according to one of the claims 1 to 3, wherein the multicast group management message is an IGMP message.

5. Method according to one of the claims 1 to 4, further comprising the step, by the multicast group management module upon reception of the new frame, of updating its multicast group information.

6. Routing device (1) for connecting a first and a second network, characterized in that it comprises:

- (a) a switch (2) for receiving frames from the first network;
- (b) an internal bridge function (4) for delivering frames to appropriate modules, said bridge function being connected to the switch (2);

(c) a multicast group management module (6) for maintaining up to date multicast group information based on frames received on the first network,

said multicast group management module being connected to the bridge function for receiving selected frames there from;

wherein the switch is adapted to determine whether a received frame comprises a multicast group management message, and in the affirmative, providing a new frame comprising multicast group management information extracted from the original frame, wherein the second frame has a destination address equal to the address of the multicast group management module, and for forwarding the new frame to the bridge function.

10           7. Routing device according to claim 6, wherein the switch is an Ethernet switch.

15           8. Routing device according to claims 6 or 7, wherein the switch comprises a plurality of ports for receiving frames, and wherein the switch is further adapted to include into the new frame a port identifier of the port on which the initial frame containing the multicast group management message arrived.

20           9. Routing device according to one of the claims 6 to 8, wherein the multicast group management message is an IGMP message.

25           10. Switch circuit for use in a device according to claim 6, said circuit comprising multiple input ports, characterized in that it is adapted to determine whether a received frame comprises a multicast group management message, and in the affirmative, providing a new frame comprising multicast group management information extracted from the original frame, wherein the second frame has a destination address equal to the address of the multicast group management module, and for forwarding the new frame to the bridge function.